

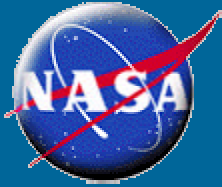
# NASA Langley Research Center's VPP Experience

Alan Phillips

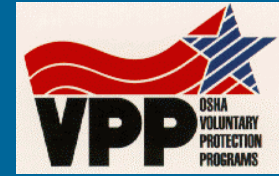
NASA Langley Research Center

Office of Safety and Facility Assurance

February 10, 2000



# What is the VPP?



- **The OSHA Voluntary Protection Program (VPP) is a collaborative agreement between employers and OSHA which recognizes exemplary safety and health programs that conform to the 19 VPP**

**Management Commitment**  
**Accountability**  
**Safety and Health Rules**

**Employee Participation**

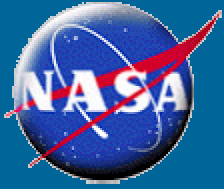
**Employee Hazard Reporting System**  
**Accident/Incident Investigation**  
**Safety and Health Training**  
**Hazard Analysis Procedures and Reviews**

**Preventive Maintenance**  
**Emergency Programs and Drills**

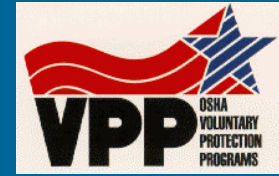
**Personal Protective Equipment**

**Contractor Safety**

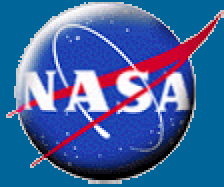
**Annual Self-evaluation**



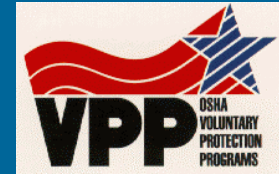
## Why Did Langley Do It?



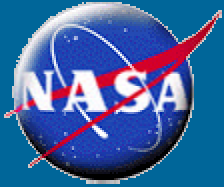
- **Pushed Langley to raise safety and health to a higher level, as desired by the NASA Administrator**
- **The application process forces identification of safety program weaknesses and development of corrective action**
- **Certification is an irrefutable third-party validation of the Center's safety program**
- **Continuing participation requires that safety and health programs be maintained at a very high level (Who wants to be the Center Director who loses STAR certification)**
- **This program is an evaluation of the condition of our existing safety program. All actions taken during this certification effort were to improve the safety program, not just to receive**



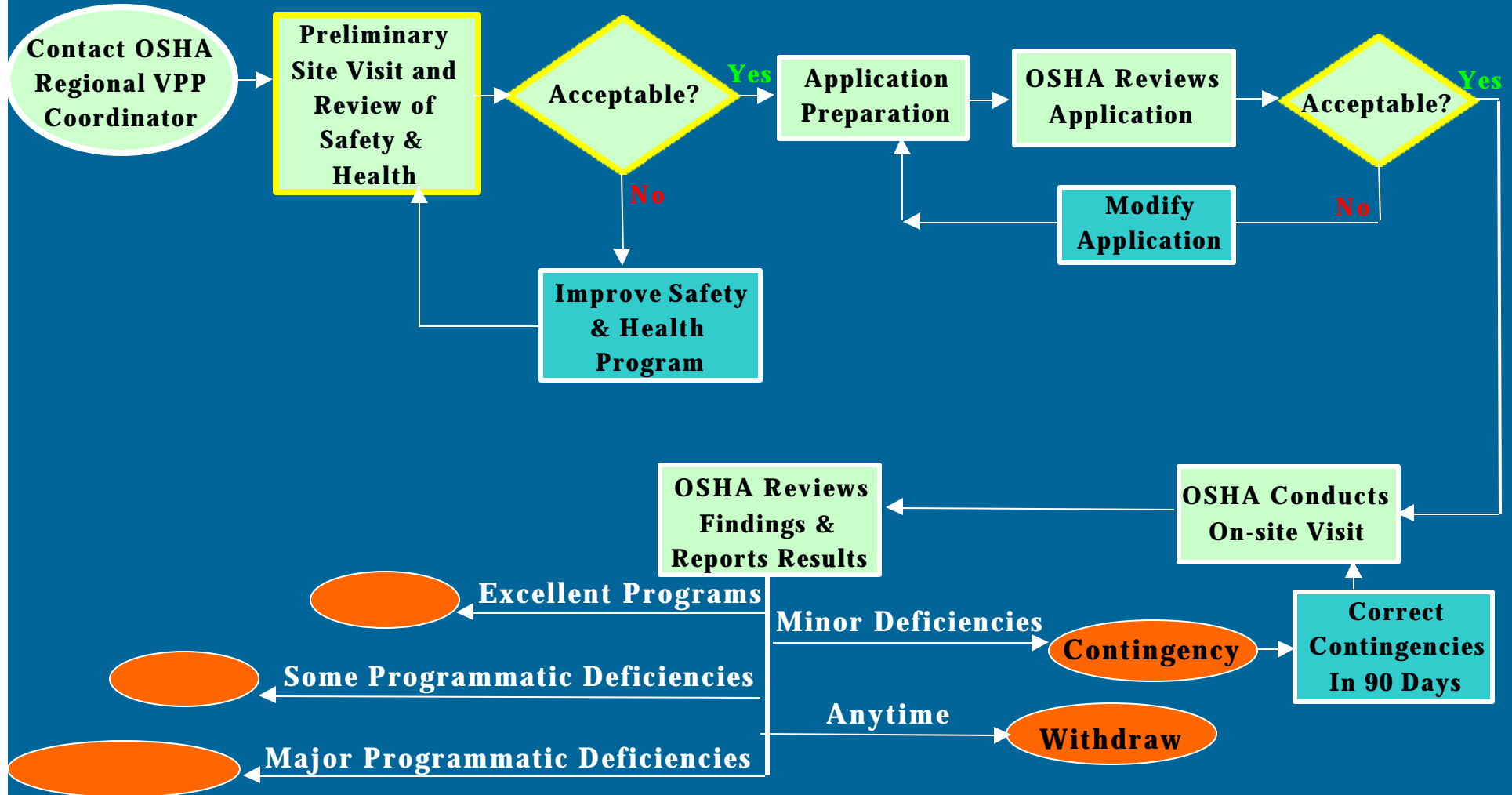
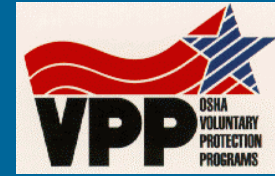
## **What are the Requirements for Participation?**

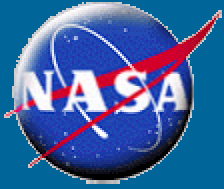


- **A preliminary assessment by the OSHA Regional VPP Coordinator to ensure that a good safety and health program**
- **The preparation of a comprehensive application which describes how the site complies with the elements of the VPP (**
- **A rigorous, in-depth, on-site visit to assess the safety and health**
  - **Not an OSHA Compliance audit**
  - **Focus on programs, not OSHA violations**
  - **Much attention to programs not required by OSHA**
  - **Good safety attitude by everyone**

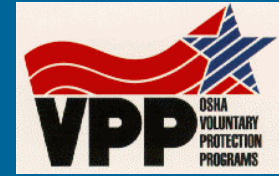


# VPP Evaluation and Approval Process

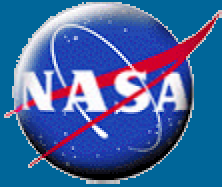




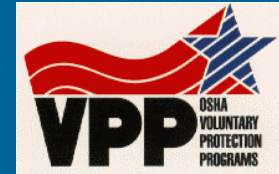
## What Does it Take to be a STAR Site?



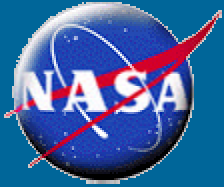
- **Previous interactions with OSHA indicate open, honest and good faith relationship**
- **Injury rates significantly below the national average for similar**
- **Demonstrated and documented management and union commitment to the program**
- **Demonstrated implementation of the 19 VPP safety program**
- **Compliance with the requirements of 29 CFR 1960**
- **Positive attitude towards safety**



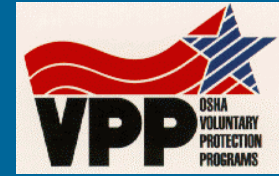
## **What is Required in the Application?**



- **Addresses each of the 19 VPP elements as well as compliance with**
- **Consists of two sections**
  - **Narrative addressing the elements (approximately 25 to 30**
  - **Attachments (approximately 400 pages)**
- **Attachments should be real examples, not blank forms**
- **Must include commitment statements from both management and**

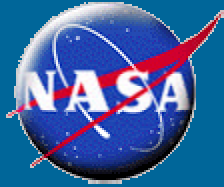


## How Long Did It Take?

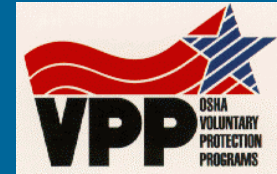


- **The typical private site VPP effort takes 1-1/2 to 2 years (from declaration of intent to STAR certification)**
- **Sites without strong safety programs have taken as long as 5 years**
- **Langley took 5 months from bona fide intention to apply to end of**
  - **Langley had a strong safety program**
  - **VPP certification was managed like a project (with little slack**
  - **Complete Center commitment was evident by:**
    - **Employees**
    - **Unions**
    - **Contractors**
    - **Management**

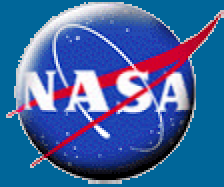




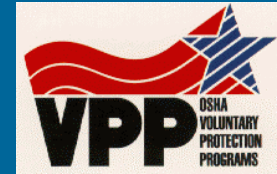
## **Langley VPP Certification Process Timeline**



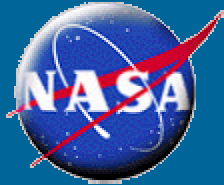
- **June 3** **Preliminary On-site Assessment by Regional**
- **June 25 - 26** **VPP Application Workshop**
- **June 27** **Start drafting VPP Application**
- **July 8** **Langley's Executive Safety Board Endorses**
- **July 14 - 17** **Headquarters assessment of Langley's Safety**
- **July 15** **Center Director Approves VPP Pursuit**
- **July 24** **Begin safety/health inspection of all facilities**
- **July 27** **Langley Senior Staff briefed on VPP**
- **July 20 - Aug 6** **Development of Employee Safety Pocket Guide**
- **July 29** **Headquarters evaluation of Langley's health and**
- **August 4** **VPP Application revised with OSHA's input**



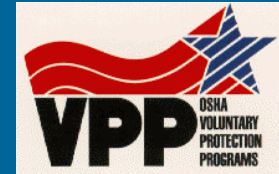
## **Langley VPP Certification Process Timeline**



- **August 5** **VPP Presentation to Aerospace Safety Advisory**
- **August 11** **VPP Application submitted to OSHA**
- **August 17** **VPP awareness campaign initiated**
- **August 20** **VPP presentation to Langley Contractor**
- **August 21** **Employee Safety Pocket Guide distributed**
- **August 24 - Sept. 2** **Manager/Supervisor Safety Training**
- **September 10** **New lock-out, tag-out program in effect**
- **September 11** **Langley Safety Stand Down**
- **September 14 - 18** **Preparation for on-site visit**
- **September 21 - 25** **OSHA on-site visit**
- **October 16** **OSHA Region 3 completed review of report**
- **October 23** **Official notification of VPP STAR status**

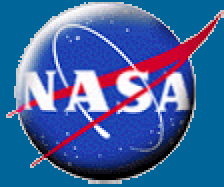


## How Much Did It Cost?

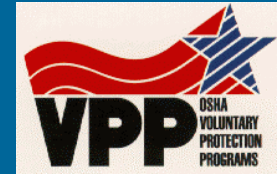


- Most things would have been done with or without VPP
  - Approximate incremental costs for VPP only:
    - \*Civil Servants overtime
    - \*Additional safety/health inspections by contractor
    - 
    - Materials/Reproduction
    - VPP awareness banners \$ 2K
- TOTAL*      *\$77K***

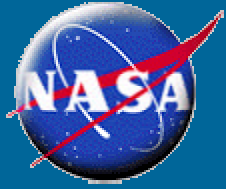
\*Hurricane Bonnie interrupted activities for one week. A large portion of these expenses would not have been required otherwise.



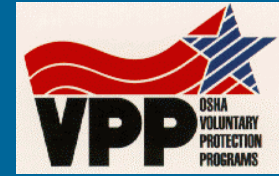
## VPP Publicity and Training Activities



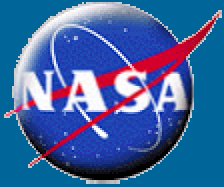
- Briefings to managers and employees at all levels
- Briefings to Executive Safety Board Committee Chairs
- Several articles in the Researcher
- Center-wide e-mail messages on what the program is and what personnel should know about the Langley Safety Program
- Use of Safety Alerts and Langley Channel 11 messages
- Training for all supervisors and managers
- Training for Facility Safety Heads and Facility Coordinators
- Employee Pocket Safety Guide
- Banners



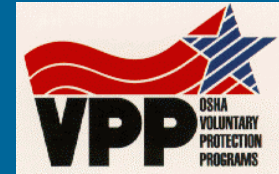
## **What Program Improvements Were Made in Preparing for VPP?**



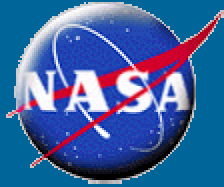
- **Employee Safety Pocket-Guide**
- **“Lock-out, Tag-out” replaced “Tag-out Only”**
- **Updated procedures**
- **Initiated yearly “Safety Stand Down”**
- **Re-establishment of cafeteria food/sanitation inspections**
- **Yearly supervisor/manager training**
- **Re-establishment of explosive ordinance inspections**
- **Improved safety clauses in contracts**



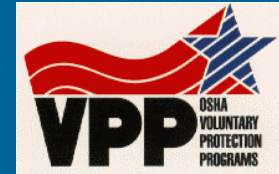
## What was OSHA's Visit Like?



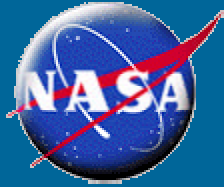
- **One week in duration**
- **9 OSHA assessors (multiple expertise)**
  - **Private Company (1)**
  - **Department of Energy (1)**
  - **OSHA Utah Emergency Response Team (1)**
  - **State of Virginia OSHA (1)**
  - **OSHA National Office (1)**
  - **Region 3 VPP Coordinator - lead (1)**
  - **OSHA Compliance Officers (3)**
- **Evaluation was based on the 19 elements of the VPP and compliance with 29 CFR 1960**
- **Team also evaluated the state of the “safety culture”**



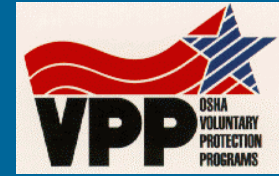
## On-site Evaluation Schedule



- **Monday consisted of a complete overview of the Langley Safety Program to the entire team**
- **Tuesday, Wednesday and Thursday consisted of meetings with individual team members on specific topics, facility tours, and**
- **Friday morning was an OSHA workday followed by an outbrief to the Deputy Center Director**
- **At the end of each day, the team had an internal meeting followed by a briefing on findings to safety office personnel**
- **Days were long, stressful, frustrating and emotional**

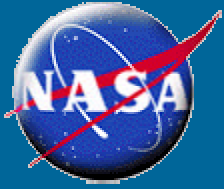


## VPP Interviews

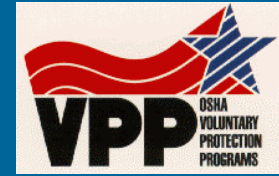


- **Informal interviews**
  - **The team conducted over 100 informal interviews**
  - **Primarily done during site visits**
  -
- **Cafeteria workers**
- **Janitors**
- **Grounds Maintenance Personnel**
- **All personnel on Center are subject to being stopped and questioned by a team member**

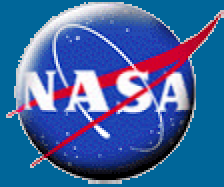




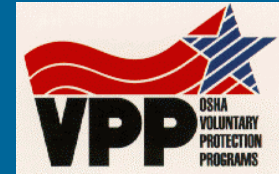
## VPP Interviews



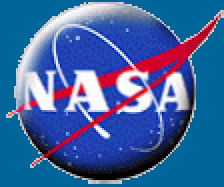
- **Formal interviews**
  - **The team conducted 50 formal interviews**
  - **Interviews were conducted with a cross section of personnel from senior management to technicians**
  - **Interviews lasted half an hour and were conducted in private**
  - **Langley safety personnel were not allowed to be present during**



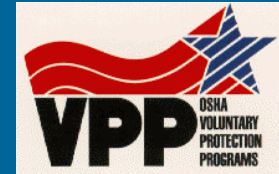
## **What Follow-up is Required?**



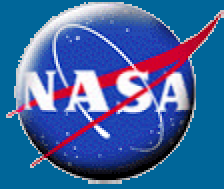
- **Two types of required follow-up actions**
  - **Formal Recommendations**
  - **90-day Contingency Items**
- **Formal recommendations are part of the final report and must be addressed prior to the next OSHA VPP evaluation**
- **90-day contingency items are compliance issues noted during the evaluation that must be corrected quickly. Proof of correction must be provided to OSHA within 90 days.**



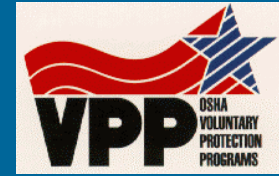
## **What were the Major VPP Visit Recommendations?**



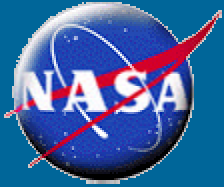
- **Modify performance standards to require that supervisors foster employee participation and empowerment in safety and health**
- **Enhance employee involvement**
  - **Involve employees in safety and health inspections**
  - **Create facility specific safety committees**
- **Use the latest industry consensus standards for age corrections in the Hearing Conservation Program. Do not use the**
- **Conduct cooling tower water analysis**
- **Review hot water temperatures**
- **Evaluate exposure of resins to the skin**



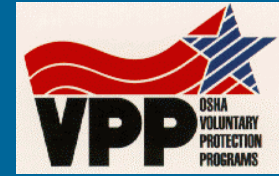
## **What were the Major VPP Visit Recommendations? (continued)**



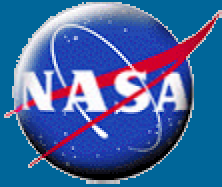
- **Place emphasis on common hazards (slips, trips, falls)**
- **Enhance the self-inspection program documentation**
- **Replace the ambulance (which has a poor performance record)**
- **Document the annual hearing conservation training**
- **Determine if testing should be administered in some employee certification programs**
- **Make Facility Safety Head and Facility Coordinator training**



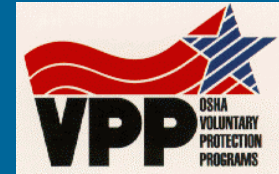
## Federal Site VPP Issues



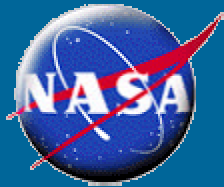
- **Quarterly Inspections**
  - **LaRC Safety Office performs and documents annual OSHA and fire protection inspections in all facilities**
  - **Collateral Duty Safety Officers in each facility performs frequent inspections (more often than quarterly)**
    - **No documentation of these inspections unless violations**
    - **New program requires documentation of all inspections through use of a checklist**
- **Contractor Past Performance**
  - **VPP looking for past safety performance to be a major element (ideally one of the top two or three elements in contractor**
  - **FAR does not allow safety past performance to carry the weight that OSHA would like**



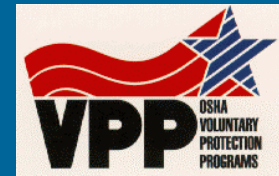
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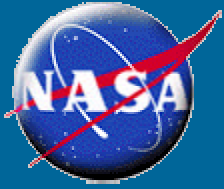
- **Civil Service vs. Contractor Injury Rates**
  - Need to clearly define expectation up front
- **OSHA 200 Log**
  - VPP requires use of the general industry 200 log to record injuries and illnesses
- **Contractor Safety**
  - Must show that contractors are required to comply with site safety and health regulations and that government has methods in place to assure this compliance and force corrective
- **Annual Safety and Health Self Evaluation**
- **Terminology**
  - JSA Vs SAR/LRE/SOP



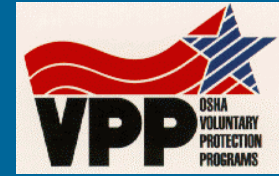
## **Lessons Learned - Preparation**



- **First step is to meet with the Regional VPP representative to determine specific requirements**
- **Senior management commitment is essential at every stage of**
- **Focus on employee participation**
- **The union leadership should be brought into the process as early**
- **Ensure that the site is in compliance with all elements of 29 CFR 1960 and all major elements of 29 CFR 1910/1926**

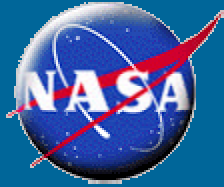


## Lessons Learned - Preparation

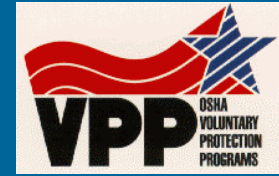


- **Daily tag-ups with all team members involved in preparation activities and the use of a punch list of required activities helped ensure that all identified issues were being adequately addressed and all required actions were being completed in a timely manner**
- **You cannot over communicate to employees. No matter how much effort you put into publicizing your VPP effort to personnel, OSHA will still find at least one person working on your site who**

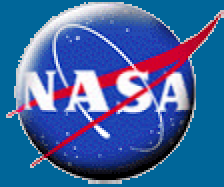




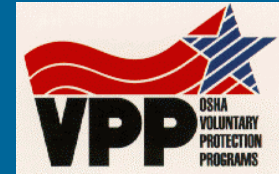
## **Lessons Learned - Application**



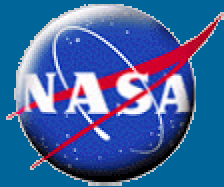
- **Attend one of the Voluntary Protection Program Participants Association (VPPPA) classes on application preparation**
- **Examples of successful applications are very helpful**



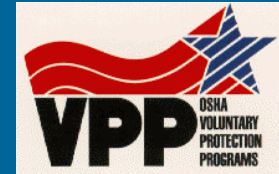
## **Lessons Learned - On-site Evaluation**



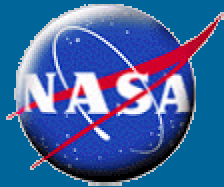
- **Team members are primarily compliance officers with little exposure to high tech operations or government facilities**
- **A first day overview of the site's activities and the elements of the site safety and health program is critical**
- **Expectations need to be clearly defined during the opening conference (I.e., purpose of the evaluation is to ascertain positive aspects of the safety and health program, not to conduct a**
- **A schedule for the week with detailed 19 element-focused presentations is crucial**



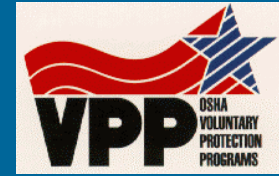
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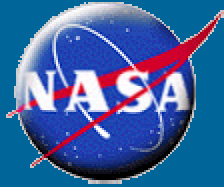
- **Evaluation team members have a tendency to revert to compliance officer mode and focus on minor violations encountered instead of**
- **All identified violations should be corrected by the end of the**
- **Providing written information on site functions, activities, recent results, and the impact of work done will help the team in writing**
- **Be prepared to provide summary paragraphs of specific program areas if requested to assist the team in concisely capturing the**



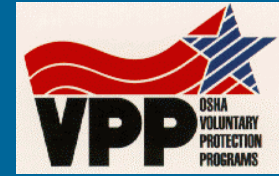
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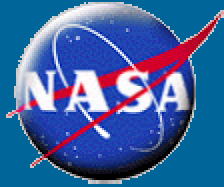
- **Have lap top computers and secretarial support available for the**
- **A central library of information and examples that team members might request was helpful since everything was in one place,**
- **Bus tours, evening social activities, and promotional items such as pins and patches help establish a positive atmosphere**
- **The team will have difficulty dealing with differences between government and private industry practices, particularly in the area of contractor safety**



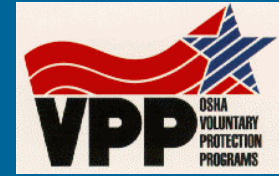
## **What Were the Benefits of VPP Participation to LaRC?**



- **A better, stronger safety and health program**
- **Continued emphasis on safety and health (to maintain STAR status) (Program re-evaluated by OSHA every 3 years)**
- **Correction of deficiencies**
- **Improved morale (employee's realize someone cares about them)**
- **Improved union relationship (union participation is mandatory)**
- **Improved relationship with neighbors**
  - **Air Force (close interaction during preparation)**
  - **Newport News Shipyard (Gave advice)**
  - **Other NASA installations (assist them in VPP pursuit)**



## LaRC Bottom Line



- **We are glad we did it**
- **Others may benefit by doing it**
- **Have given copies of application and VPP visit documents to other organizations interested in participating**
- **Corrected many problems just in the preparation**
- **Forces us to maintain a strong safety program**
- **Minimal cost and time if you start with a strong safety and health**